

DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION  
FOR IRELAND.

REPORT  
OF THE  
DEPARTMENTAL COMMITTEE  
ON THE  
IRISH PIG-BREEDING  
INDUSTRY.

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Presented to both Houses of Parliament by Command of His Majesty.

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To His Excellency IVOR CHURCHILL, BARON WIMBORNE, &c., &c.,  
LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY,

I am directed by the Vice-President to submit to Your Excellency the Report of the Departmental Committee on the Irish Pig-Breeding Industry.

I have the honour to remain,

Your Excellency's faithful Servant,

T. P. GILL,

*Secretary.*

Department of Agriculture and  
Technical Instruction for Ireland,  
Upper Merrion Street,  
Dublin, 27th April, 1915.

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## Departmental Committee on the Irish Pig-breeding Industry.

### COPY OF MINUTE APPOINTING THE COMMITTEE.

I HEREBY nominate and appoint a Committee to inquire into the present state of the pig-breeding industry in Ireland, with special reference to the causes which contributed to the recent decrease in the number of pigs in Ireland; and to submit recommendations.

The Committee will consist of the following:—

JAMES SCOTT GORDON, B.Sc., Deputy Assistant Secretary in respect of Agriculture and Chief Agricultural Inspector of the Department of Agriculture and Technical Instruction for Ireland (Chairman);

ROBERT N. BOYD, Carnall, Carnmoney, Co. Antrim;

PATRICK CLUNE, Department of Agriculture and Technical Instruction for Ireland;

STEPHEN O'MARA, Strand House, Limerick;

OLIVER W. H. ROULSTON, B.A., Department of Agriculture and Technical Instruction for Ireland;

J. WILLINGTON, J.P., St. Kieran's, Birr, King's Co.

Mr. ROULSTON will act as Secretary to the Committee.

(Signed), T. W. RUSSELL,  
Vice-President, Department of Agriculture  
and Technical Instruction for Ireland.

Dated this 5th day of October, 1914.

# REPORT.

TO THE RIGHT HON. T. W. RUSSELL, M.P.,

VICE-PRESIDENT OF THE DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION  
FOR IRELAND.

SIR,

By your Minute of 5th October, 1914, we were appointed a Committee—"to inquire into the present state of the Pig-breeding Industry in Ireland, with special reference to the causes which contributed to the recent decrease in the number of pigs in Ireland; and to submit recommendations."

## PROCEDURE.

In accordance with this Minute, we took the following steps to collect the evidence which enables us to submit this Report. To ensure that the evidence given should be as representative as possible, the witnesses invited included Breeders, Feeders, Bacon Curers, Shippers and Buyers of pigs, members of the Irish Pig Dealers' Association, of the County Agricultural Committees and of the leading Agricultural Societies and Farmers' Associations, and a representative of the Irish Agricultural Organisation Society. A number of other persons interested in the industry, who expressed a desire to put their views before the Committee, were also examined. In addition to these, statements regarding the general working of the Department's Pig-breeding Schemes and the conditions of the industry were obtained from the Department's Live Stock Inspectors in each province; evidence was also given by the Superintendent on the pig-feeding experiments carried out at Clonsilla Agricultural Station; while information on special points which arose during the course of the inquiry was furnished by officers connected with the Veterinary and Statistics branches and the Marketing section of the Department.

Sittings for the purpose of taking evidence were held at Dublin and the following provincial centres:—

<i>Munster.</i>	<i>Connacht.</i>	<i>Leinster.</i>	<i>Ulster.</i>
Cork	Athlone	Portlington	Belfast
Waterford	Galway	Carlow	Ballymena
Limerick	Castlebar	Enniscorthy	Londonderry
Tralee	Sligo	Dundalk	Enniskillen
Tipperary		Longford	Cavan

In all, 25 public sittings were held and 144 witnesses examined. The centres at which these sittings were held were selected as being situated in districts well known for pork production. Notification regarding the sittings was given beforehand in the press, and the attendance of persons who desired to give evidence invited.

In addition to the witnesses orally examined, a number of persons who found it inconvenient to attend submitted statements, and such of these as appeared to us to throw light on the subject have been inserted as appendices to the Minutes of Evidence.

The Committee considered that the Minutes of Evidence to accompany this Report should be in the form of a condensed summary of the views expressed by the different witnesses rather than a full verbatim record of the statements made in each case, as the former furnishes an adequate record of the evidence submitted. In each case the summary was approved by the witness.

As the Vice-regal Commission on Irish Railways, which reported in 1910, dealt fully with the transit of live stock, including carriage, freight, etc., the Committee considered that this question did not come within the scope of their inquiry.

## SECTION I.

## (a) PRESENT CONDITIONS OF THE INDUSTRY.

An examination of the numbers of pigs in Ireland for each year so far back as 1831 shows that these have remained fairly constant; the average approximates to 1,250,000. During the period 1831-1910 the variation from year to year was comparatively slight, save in 1892, when the number dropped by over 250,000. In 1911 the number of pigs in the country rose to 1,413,119, a figure which has been exceeded only once since these statistics were collected, viz. in 1882, when a total of 1,430,128 was reached. In 1912 the figures fell to 1,323,957, and in 1913 a further and more considerable shrinkage reduced the number to 1,060,300. The inquiry on which this Report is based deals with the causes which brought about the abnormal drop of approximately 20 per cent, between June, 1912, and June, 1913.

The pigs produced in Ireland are disposed of in the following ways, namely:—

- (1) Those handled by Irish bacon curers, and those killed for home consumption; and
- (2) those shipped alive to English and Scotch markets.

As an indication of the relative number of pigs disposed of through these channels, it was estimated that in the year 1910—which was the last season free from any abnormal conditions—there were 1,438,000 killed in Ireland and 324,000 exported alive.

The total value of the pig industry in Ireland was estimated to be £6,887,000 in 1903, and £8,146,000 in 1914; the average annual value for the past five years has been over £8,000,000.

The bacon curing industry in Ireland is carried on by at least fifty different firms, employing approximately 3,000 hands. These firms are established in Limerick, Waterford, Cork, Dublin, Belfast, Londonderry, etc. On an average, over one and a quarter million pigs are handled annually by Irish curing firms, and approximately four-fifths of the cured bacon and hams are exported, the balance being disposed of at home.

The quantity of bacon and hams exported annually from Ireland amounts approximately to one-fifth of the total weight imported to the markets in Great Britain; yet, notwithstanding the fact that Ireland is a pork-raising and bacon-exporting country, a considerable quantity of both American and Danish bacon is imported yearly for consumption in this country. The imports of American bacon into Ireland are, however, considerably heavier than Danish, and the former commodity finds its largest consumption amongst the small holders who are themselves engaged in raising pigs.

The chief countries competing with Ireland on the British markets are Denmark, United States, and Canada. As regards bulk of supplies marketed, Denmark now occupies first place, though it has been only within the past three years that the value of the bacon exports from that country has exceeded the value of the United States' shipments.

The number of live pigs shipped annually from Irish ports is considerable—in normal seasons the total exceeds 300,000. The larger proportion of these are sent from Dublin, which is the exporting centre for most of the midland and western counties. Shipments are also made from Cork, Waterford, Belfast, and other ports.

The bulk of the fat pigs shipped alive from Ireland are known as "heavyweights," that is, pigs weighing from 2½ to 3 cwt. and upwards, and the period of greatest activity in this branch of the trade is during the late autumn months. Pigs of this weight are unsuitable for the requirements of Irish curers, but they are in demand in English provincial centres for consumption as fresh pork and for making into sausages. Fat pigs of lighter weights, known as "sizeable," are also shipped from southern ports to the large curing establishments in the south of England when there is a demand for these weights. A similar trade in sizeable pigs from the north of Ireland is carried on with the south of Scotland and the north of England.

The live pig trade is conducted by shippers who buy most of their supplies in the fairs which are held throughout the midland, southern, and western counties.

Since the outbreak of Foot and Mouth disease in 1912—in which year the shipping of live pigs was temporarily suspended—there has been a considerable falling off in the numbers of pigs exported. Shippers attribute this decline to the regulations enforced subsequent to the last outbreak of this disease. Under these regulations, which are the outcome of an order of the Board of Agriculture for England, pigs are subjected to ten

hours' detention at the port of debarkation. The effect of this, according to the evidence given, is to handicap the shipping trade seriously, owing to the delay in getting pigs through to customers, as well as the loss in weight and extra expense which it entails—amounting to 4s. per pig.

In addition to the live pigs shipped there is a considerable export of dead pigs from the north of Ireland: these are either sent unsalted, *i.e.*, with the hair on, to the south of Scotland for the skinned roll trade, or, if salted, to Liverpool and Manchester for consumption as cured or fresh pork. There is also at certain seasons a limited trade in the export of small pigs—porkers from 50 to 100 lbs. in weight. These pigs are almost all sent to the Smithfield Market, London.

Pig raising in Ireland is largely an industry of the small holders. The explanation of this lies in the fact that tillage or mixed farming and the breeding and feeding of pigs go side by side. As a rule, except in purely tillage districts, large holders in Ireland devote attention chiefly to the raising of store cattle or the production of beef. These farmers seldom keep pigs. Even if they wished to do so, the evidence from all four provinces shows that the difficulty of obtaining suitable labour is a considerable obstacle. This difficulty does not affect the small holders, who employ little outside labour. Moreover, the amount of tillage which is done on small farms enables the holders to provide quantities of home-grown foods, which can be utilized to great advantage by being fed to pigs.

Dairying, as well as tillage, also provides means of keeping pigs profitably. Denmark is a signal example of this. Danish farmers devote their energies chiefly to co-operative dairying, and, as the only cattle reared are those necessary to replace the breeding stock of the country, they are forced to keep pigs in order to consume the separated milk which otherwise would be almost worthless as a by-product. The Irish farmer, on the other hand, unlike his Danish competitor, raises store cattle to a number which approaches one million annually, and consequently has a choice of feeding his separated milk either to calves or to pigs, whichever he considers the more profitable. Hence the extension of the creamery system in Ireland has not had the same effect in developing the feeding of pigs as in Denmark.

Many witnesses stated that they considered the rearing of calves was more profitable than the feeding of pigs, and that the small profit from pig-feeding was in some cases due undoubtedly to the high price paid for young pigs or bonhams. On the whole, the evidence shows that the most consistent profits are obtained when the feeder breeds the pigs he subsequently fattens, and when he feeds these on foods chiefly raised on his own farm.

In Denmark and in certain districts of Scotland and England pig-feeding on a large scale is extensively practised—one owner having as many as 300 to 400 pigs on hand at the same time. This system possesses a double advantage—(1) the cost of labour and attendance is reduced to the minimum, and (2) the purchased foods, which are required in quantity, can be bought to most advantage. In Ireland—though instances are to be found in several districts, both north and south—the number of persons who are carrying on pig feeding in such an extensive way is limited. The prospect of continuous high prices for pork, as well as a better knowledge of economical methods of feeding pigs, may induce more farmers to adopt this system. In light of the claim made for the pig, that of all classes of farm stock it returns the highest proportion of meat for the food consumed, it is a matter of surprise that pig fattening on a large scale has not received greater attention from stock owners in Ireland.

From the evidence given it would appear that pigs are not fed by the labouring classes in Ireland to the same extent as in former years. The chief reasons assigned for this by many of the witnesses are the want of housing accommodation for pigs in connection with the new Rural District cottages, and the disinclination of the labourer's family to feed and look after pigs. As regards the lack of housing accommodation, it was satisfactory to learn from witnesses that in the rural districts of many counties, a suitable pig-stye had been erected in the plot attached to each cottage. In a number of other counties, however, this had not been done, and as a consequence many labourers are now unable to keep a pig where otherwise they would be inclined to do so. In some of these cases labourers have put up pig-sties at their own expense, but these structures are very often unsuitable for the profitable fattening of pigs. Even on many small farms the pig-houses are badly roofed and the floors ill suited to provide drainage and warmth: these drawbacks interfere considerably with the profits from feeding.

According to evidence which has been repeated at nearly every sitting, the increased value of the returns from poultry and eggs in recent years has induced labourers' wives and families to take up poultry keeping in preference to the feeding of pigs. Unless bonhams are selling cheaply, a labourer cannot always buy a young pig. On the other

hand, the cost of procuring poultry is comparatively small, the returns are continuous, and, in addition, the labour involved in the care and management of poultry is lighter and more attractive to the labourer's wife and family than pig-feeding.

The system of marketing fat pigs differs in the north and south of Ireland. Throughout Leinster, Munster, and Connacht pigs are sold alive either at fairs or at weekly markets. In the north the custom is to kill the pig at home and sell the carcass in the local market. Both systems have their advantages and disadvantages.

Outside Ulster the bulk of fat pigs are sold either in fairs or in market towns. In the fairs, pigs are usually bought by (1) dealers who buy on commission for bacon curers; (2) by dealers who buy independently for re-sale to bacon curing establishments; and (3) by shippers who buy for export to English provincial centres. In many market towns pigs are bought by live weight, and scales are provided for this purpose either by the local authority or by the bacon curing firms. In evidence, feeders expressed satisfaction with the scales system of selling, especially in centres where several firms had scales. Some of the shippers examined did not approve of this system of selling, because of its effect in reducing the number of pigs brought to the fairs. In addition to these methods of marketing, feeders have also the option of consigning pigs to the bacon curing establishments and being paid on the dead weight returns.

In Ulster practically all pigs are marketed dead. As a rule, feeders know from consulting local papers what the current price for pork has been in the neighbouring markets a day or two before they propose to kill their pigs, and are thus in a position to determine the price they may expect to realise.

### (b) PROSPECTS OF THE INDUSTRY.

The prospects of pig-feeding in Ireland must be gauged by the future condition of the British market in regard to the supply of bacon and hams. For a number of years past the chief sources of supply have been Denmark, United States, Canada, Holland, and, to a minor extent, a group of other countries which include Belgium, Sweden, Russia, and Servia. For some considerable time Danish bacon has been the principal competitor of prime quality Irish on the British market. The attention given to the industry and the way supplies are regulated, as well as the uniformity in quality obtained, have enabled the Danes to attain a commanding position. Danish exporters are the largest suppliers to the British market, and in consequence exert the strongest influence in fixing prices. Pig feeders in Denmark annually import large quantities of mill offal and meals, as the amount of grain grown in the country is insufficient for the number of stock kept. When war conditions arose, prices for these feeding materials rapidly advanced; feeders found it unprofitable to continue feeding their usual supplies of pigs from want of keep; young pigs were at the end of 1914 almost unsaleable; feeders were killing off large numbers of unfinished pigs, and even sows were being turned into bacon. How far this reduction in stock may go, it is difficult to foresee. The one thing obvious, so far as Denmark is concerned, is, that for some time to come, a considerable shortage in the usual pig supplies from that country may be anticipated.

From returns as well as from direct evidence it is clear that the quantity of bacon and hams sent to the United Kingdom from the United States has, during the past two years, shown a tendency to decrease. Several reasons have been advanced to account for this falling off. The United States is, according to the last census (1910), not increasing her pig stocks, while the human population is increasing rapidly. It may, therefore, be deduced that if these conditions continue, as seems highly probable, the time will shortly arrive when a surplus supply of pork for export will no longer be available, inasmuch as the whole output will be required to meet the increasing home demand.



Moreover, Canada, with a rapidly increasing population, has also been a dwindling source of supply for a number of years, and there is nothing to indicate that Canada will again hold the position on the British market which she occupied ten years ago.

Holland supplies by far the largest quantity of fresh pork to the British markets, and contributes almost 80 per cent. of the total Smithfield supply. But in common with Belgium, Russia, Sweden, and Serria the productive capacity of Holland for the present has been altered by the war, and it is not easy to see how any of these countries can contribute their normal supplies to the British markets for some time to come.

These facts point to the conclusion that if a shrinkage from the sources already indicated takes place, there will follow a serious shortage in bacon and pork supplies for the British market. How is this difficulty to be met? Clearly the existing circumstances offer Ireland an opportunity of improving her position on the market which she ought not to neglect. According to the evidence given, those who have a long experience of the trade are in agreement that pork values are likely to remain high for a considerable period. Both these factors should encourage Irish breeders not merely to maintain, but to increase considerably their stocks of breeding pigs.

As a national industry pork production in Ireland has shown a steady increase during the past decade, and there are good grounds for believing that, with awakened interest and attention, the revenue at present derived therefrom might be enormously increased. Owing to the skill and judgment exercised by breeders in the selection of stock animals, there has been a marked improvement in the type and thriftiness of the pigs now being bred and fed in the country. These animals are capable of being finished in a shorter time, and with a smaller consumption of food than formerly; the same influence has also effected a material improvement in the quality of Irish fed pigs—a fact which must be of decided advantage to curers in maintaining the standard of their products.

The number of pure-bred boars at service in Ireland under the pig breeding schemes of the County Committees is yearly increasing, and in 1914 amounted to 25 per cent. of the total boars used in the country. Though it is satisfactory to note that there are fewer of the ill-shaped, thriftless type of sows being bred from than formerly, a number of witnesses complained that many small breeders were still very careless in this respect. The practice must be unprofitable both to the breeder himself, and to those who subsequently fatten the pigs so produced, and cannot be otherwise than injurious to the industry as a whole.

From the evidence given, the fattening of pigs appears to be receiving more careful attention than heretofore. A number of the witnesses who fed pigs based their opinion as regards the value of different foods on the experience of actual trials. This in itself shows a widespread desire to gain information regarding profitable feeding, upon which so much of the success of pig keeping depends. The results of the pig feeding experiments carried out at the Department's Agricultural Stations, as well as those conducted by the County Agricultural Instructors under the direction of the County Committees, are being followed with keen interest and will, no doubt, produce good results.

Different systems of feeding pigs are practised in different parts of the country. The evidence of the witnesses examined in the Ulster counties showed that young pigs (8 to 10 weeks old) are invariably put to fatten from the time they are weaned, and in this way can be brought to a marketable weight of about 1½ cwt. in four months. Good feeders are enabled under this system to turn out three lots of finished pigs in twelve months. In Connacht generally and over large areas of Munster and some Leinster counties, young pigs farrowed in the early spring months are allowed to run as stores during the summer, and are only put in to fatten when the potato crop becomes ready for use. Such pigs are usually marketable as heavyweights during the winter months. Under this system, however, feeders are able to turn out only one lot of finished pigs each year, whereas, if the system followed in Ulster were adopted, at least two lots of animals could be marketed in the year. Several witnesses expressed the conviction that by the adoption of the latter system, coupled with more attention to feeding, the present output could be greatly increased.

The view was expressed by some witnesses that any material increase in the number of pigs fed in Ireland would have the result of causing the prices of pork to fall. As against this, it has been pointed out that, having regard to the relationship of the Irish supply to

the total quantities of pig products dealt with on the British markets, an increase in the volume of Irish supplies could have but a very inappreciable effect on the trade as a whole, and, therefore, would not depress the home prices for pigs to any extent. At present Irish exports constitute about one-sixth of the import bacon supply of the United Kingdom, hence a considerable increase in the quantity of Irish bacon sent to the cross-channel markets would be necessary in order to cause a fall in price. Apart from the fact that prices on the London market for bacon are little affected by the numbers of pigs being fed in Ireland, it is the reasoned opinion of Irish curers, as expressed in evidence, that an increase in the numbers of Irish pigs, if it were gradual, would not have any material effect on the price which bacon curers could pay for pork in Ireland. In fact, it is estimated that if the present export of bacon and hams from Ireland were increased by 20 per cent., this increase would mean an advance of only 4 per cent. on the total supplies to the markets of Great Britain. This addition, it must be pointed out, however, would need to be a regular supply of marketable pigs, maintained month by month throughout the year. Moreover, each of the curers examined assured us that his firm could, with existing buildings, equipment, and working staffs, handle from 25 to 50 per cent. more pigs in the year than they are dealing with at present, provided the increase was gradual and regular. Such an addition in the turn-over of these firms might be expected to react to the benefit of curers and feeders alike, and the increasing supplies thus forwarded would strengthen the position and enhance the value of Irish bacon on the cross-channel market.

The pig industry in Ireland is carried on by the combination of breeder, feeder, and curer, all three being indispensable. Hence, for the development of the trade as a national asset, co-operative effort between all three is eminently essential.

## SECTION II.

### CAUSE OF THE SHRINKAGE IN 1913.

By the terms of reference this Committee was required to investigate specially the cause or causes which led to the abnormal shrinkage of pig numbers in Ireland between the summer of 1912 and the corresponding period in 1913. The actual falling off was from 1,323,957 in 1912 to 1,060,360 in 1913, or a decrease of approximately 20 per cent.

The evidence submitted to us disclosed a number of contributory causes; we have carefully weighed the proportionate effect of each of these, and estimated its influence in producing such a marked result. As a consequence we are unanimous in reporting that the chief causes of the shrinkage were the concurrently low prices of pork and the high price of feeding stuffs during the closing four months of 1911 and the opening four months of 1912.

Most of the witnesses examined strongly corroborated this view. One witness, who supplied very valuable figures in this connection, stated in his examination at Cork that the average price of pork for the last four months of 1911 stood at 47s. per cwt., and for the first four months of 1912 at 50s. per cwt.; while at the same periods, and in the same district (Macroom), the average retail price of Indian meal was 21s. 8d. and 21s. 2d. per 2½ cwt. sack, or £8 13s. 4d. and £8 9s. 4d. per ton respectively. Similar figures regarding the relative prices of pork and Indian meal during this period were supplied to us in every part of the country. The result of these two factors was that farmers found pig-feeding unprofitable and decided to curtail it. Young pigs became extremely low in price, breeders were discouraged, a large number of breeding sows were fattened and killed during the end of 1911 and the beginning of 1912, and the total number of sows fell from 130,842 in 1912 to 105,410 in 1913. Though the result of this reduction in breeding stock was slightly noticeable in 1912, its full effect was not felt until 1913, by which time the price of pork had risen to a higher figure than had been attained for many years previously. The decrease in pig numbers which set in during the latter half of 1911, was further accentuated during 1912 owing to the poor yield of potatoes in that season. In parts of the country where pigs are fattened largely if not entirely on potatoes, a short potato crop invariably means a reduction in the number of finished pigs. The adverse effect of this shortage

in potatoes upon pig feeding in 1912 was strongly emphasised by Mr. Gallagher, Inspector for Connacht, who gave evidence in Galway. Dealing with this point, he made the following statement:—

"Though of late years the tendency had been to use more maize and other 'outside' products, the potato still reigned as the most important item in the food rations of the swine produced in the West. A considerable proportion of the potatoes grown in the province was used for pig feeding purposes, and he frequently had direct testimony to the effect that the number of pigs to be fattened by small farmers in a particular season depended upon the 'return' obtained from their potatoes. In this connection he directed special attention to the striking relationship between the comparatively poor potato crop of 1912 and the serious shrinkage of pigs in the West in 1913. While the produce of 117,168 acres devoted to potatoes in Connacht in 1911, at the rate of 6·4 tons per acre, gave a total for the province of 750,000 tons, the yield of 110,658 acres in 1912 was only at the rate of 4·8 tons per acre, or a total of 535,000 tons. The sequel was a decrease of over 47,000 (from 243,174 in 1912 to 186,386 in 1913) in the pig population of the province. A similar though not so pronounced shrinkage succeeded the poor potato crop of 1904."

On the other hand, in such Ulster counties as Antrim, Down, Armagh, Tyrone, and Londonderry, where potatoes are extensively grown for export, it is the current market price for potatoes, and the price of bonhams during the autumn and winter months that determines whether the grower will sell his potatoes or retain them for feeding to pigs. If prices are good, the potatoes are sold; if prices are low, and growers consider that potatoes are worth more for pig feeding than they will realize in the market, young pigs are bought in to consume them.

#### GENERAL FACTORS WHICH CONTRIBUTE TO FLUCTUATIONS IN THE IRISH PIG-BREEDING INDUSTRY.

Apart from the above special causes which, in our opinion, served to bring about the marked reduction in the number of pigs in Ireland in 1913, there are several other factors which we regard as generally operative in influencing the number of pigs fed in the country from year to year. These we have considered it advisable to enumerate and discuss, inasmuch as some of them have exercised considerable influence in restricting the numbers of those who feed pigs regularly, and in preventing the industry from acquiring that permanence and continuity which are so desirable.

##### (1) DIFFICULTY IN OBTAINING LABOUR.

One of the most common reasons assigned for pig-feeding not being carried on more extensively by Irish farmers is the difficulty of obtaining adequate and efficient labour. This is a difficulty which has made itself more acutely felt in recent years, and is likely to increase. The effects of emigration, and migration to towns (which has caused a scarcity of agricultural labour in rural districts), as well as the unwillingness of farm servants to undertake the care and feeding of pigs, have caused many farmers to discontinue keeping this class of stock. The general disinclination of labourers to feed pigs on large farms appears to be to some extent due to the fact that they are often required to undertake this duty after ordinary working hours, and that it also necessitates Sunday labour. On small holdings, where the feeding and management of the pig is carried out by the farmer or members of his family, this difficulty is experienced only to a slight extent. Hence the feeding of pigs has become mainly the business of the small holder.

Several witnesses expressed the view that if pigs were fed on such a large scale as to occupy the whole time and attention of a labourer the disinclination which is now shown by farm hands could be overcome.

Dealing with the question as a whole, we have come to the conclusion that while in some districts labour difficulties may prove an obstacle to large farmers carrying on pig feeding profitably, the same difficulty does not equally hamper small holders, who, as already stated, rear and feed by far the greater proportion of the pigs fattened in Ireland each year.

##### (2) CONDITIONS OF MARKETING.

Most of the feeders examined had complaints to make regarding the conditions of marketing finished pigs, and these complaints applied both to the system of selling pigs alive in the south and to the system under which dead pigs are sold in the north.

*(a) Fluctuations in Pork Prices.*

One of the main causes advanced by witnesses as tending to bring pig feeding into disfavour is the frequent fluctuations in pork prices. Feeders complain of the uncertainty of a market which may drop from 1s. to as much as 3s. per cwt. inside a week. The range of fluctuations is so great and the variations occur so rapidly and markedly in comparison with similar movements in the value of other classes of live stock, that pig feeders find it incapable of any explanation other than that prices are raised or lowered by buyers to suit their own ends. Against this must be placed the evidence of curers who, while admitting the discouragement which such violent fluctuations is calculated to engender, point out that, from the nature of pork as a commodity, these cannot be avoided. Southern curers dispose of the great bulk of their bacon and hams on the London market, where it is sold as mild cured. It is not a keeping commodity, which can be held over for a considerable period: neither can it be put into cold storage without serious deterioration in quality. The supplies sent to the London market must be sold within a specified time, whatever the ruling prices on the particular day of sale may be. Over the fixing of that price Irish curers state that they have no control, and that frequently they cannot foretell even a day beforehand what the price is likely to be. As a matter of fact, the evidence presented to us went to show that the market price of bacon in London is regulated by the normal operations of supply and demand. On the supply side, the shipments from Denmark occupy a preponderating position, as it is largely the quantity of such Continental supplies coming on the London market in any one week that determines the price of cured bacon and consequently the price which curers can afford to pay for pigs in Ireland. On the demand side, the bacon market in England is extremely sensitive: such factors as the prices of competing foods and prevailing weather conditions are found at times to influence prices considerably. This sensitiveness is well demonstrated by a table submitted to us in evidence,\* which shows that the price of cured bacon in London fluctuates considerably from month to month.

So far as northern curing firms are concerned, the evidence received shows that the quality and form of their products as well as the character of the market which they supply are essentially different from that of southern curers. According to an old established trade system, southern curers send their bacon in long sides (known as the Wiltshire cut) to the London market: these sides (four to the bale) are forwarded as mild cured green bacon to London and are afterwards smoked there. Northern curers take out the bones from the sides before curing, and put their bacon on the market in the form of rolls. The rolled bacon so produced is more strongly cured than the "mild cured" bacon which is essential for the south of England trade. The chief market for the rolls and hams exported by northern curers is in the industrial and manufacturing towns of the north and midlands of England. The northern cured bacon and hams compete in this market with the Danish and American: and it was represented to us by a number of witnesses that when Danish bacon was decidedly lower in price than Irish rolls, the former was honed and rolled by English provision merchants, and in this form put on the market to compete with the Irish supply. It was also stated that the supplies and prices of Danish and American bacon to this market fluctuate just as abruptly as in the south of England markets. The grounds for dissatisfaction which these sudden fluctuations in bacon prices and subsequently in the prices for pigs in the home markets cause to feeders were admitted by a number of representatives of leading Ulster curing firms. One witness stated that curers would prefer the price paid for fat pigs to remain more constant over a longer period than at present, were it not that the nature of the market for the finished article made this impossible. Several witnesses from the north stated that not only do these fluctuations in price occur quickly, but that in markets in close proximity and held within a few days of each other the prices paid by curers vary considerably. An examination of the weekly prices returned at contiguous markets in Ulster does not, however, appear to us to bear out the latter complaint.

Many witnesses complained that buyers take advantage of the size of the market in such a way as to point to the existence of a combination. In this connection it was suggested that if the number of pigs in the market was small, buyers competed freely and the price for pork for the day was higher. On the other hand, if the supply of pigs was large, buyers operated slowly and prices fell correspondingly. As opposed to this view, from returns supplied to us of the numbers of pigs marketed weekly and the prices paid for the pork in certain northern markets, we found that large markets do not always mean a fall in price, nor small markets a rise. On the contrary, we found that prices often showed a rise in a market with increased numbers, and in some cases a fall when the numbers of

\* See Minutes of Evidence, p. 10.

pigs exposed for sale was smaller than in the preceding market. It is, however, to be expected that where the supply is limited and the demand, as represented by the number of buyers, remains the same, competition will force all the buyers to purchase sharply, and perhaps induce some of them to advance prices higher than their instructions for the day warrant in order to get a share of the restricted supply of pigs available. In the event of an abnormally large market, if the curer purchases more pigs than he requires, it is at a reduced price, because the capacity of his factory and hands may preclude him from dealing conveniently with more than a certain number of pigs on that day; and this gives the feeder the impression that the curer's purpose is to keep down prices. The alternation, however, of large and small pig markets in successive weeks is a source of all round complaint in Ulster.

In the home trade, which is about one-fifth of the export trade and is chiefly confined to hams and middles, prices do not fluctuate to the same extent as in the export trade. Irish curers try to keep the prices level through fixed periods, and retailers usually buy three or four weeks' supply at a time. When there is a fall in the English market, retailers sometimes buy their supplies of Irish bacon in Liverpool at a cheaper rate than they could at home. Some witnesses complained that when the price of pigs fell sharply the price of bacon in retail shops remained the same: this may be accounted for by the fact that the time occupied in the curing of the pig and putting it on the retail market is considerable, and retailers who bought at the higher figure have to clear off their stocks.

From evidence it appears that it is not customary in the retail trade to change prices unless the wholesale prices warrant an advance of 1d. per lb., as it would be a cause of dissatisfaction to customers if retail prices were raised and lowered frequently. Hence retailers, with this in mind, keep prices steady, sometimes retailing below wholesale cost price and at other times at a corresponding profit.

*(b) Want of Competition among Buyers.*

Another cause of much dissatisfaction among feeders is the feeling that there is no real competition amongst buyers of pigs, such as exists in the cattle, sheep, and horse trades. This opinion has led to the belief that a "ring" or combination exists among buyers to keep prices below the level which market conditions justify, or, as stated by some of the witnesses, that curers could afford to pay feeders much better prices for their finished pigs than they do.

When pressed on the point as to what grounds they had for believing that such a "ring" or combination existed, the witnesses examined were unable to furnish us with any definite proofs. The very fact that buyers in travelling to the same fair or market, presumably to buy pigs against each other, occupied the same railway carriage and stayed over-night in the same hotel was stated to give grounds to feeders for the suspicion held. The most general reason assigned, however, was based on the fact that the same price is paid for pigs at any one market by the buyers present. Evidence given by the representatives of the leading curing firms—both southern and northern—furnished an explanation for this. Bacon curing firms, whether in north or south, have to buy the raw materials (*i.e.*, pigs, alive or dead) to sell as a finished product (bacon and hams) in the English markets, where competition from foreign supplies has to be met. The prices which bacon and hams have been realising on the wholesale markets of London and Liverpool on the preceding days of the week really determine the price which bacon curers can pay for pigs in Irish fairs or markets on the days immediately following. The tone of each day's cross-channel market is usually communicated by wire to curing firms, who in turn instruct their buyers at next day's Irish fairs or markets regarding the price to be paid for pigs.

Several other grounds of complaint regarding minor grievances in marketing were brought before our notice by feeders both in the north and south. Some of these we do not consider of sufficient importance to mention. We think it desirable, however, to make reference to the system of southern curers in making "cuts" (*i.e.*, paying a reduced price) for pigs below or exceeding certain weights. Many of the witnesses in the south and west considered that the present system takes unfair advantage of feeders, and they suggested that the grades might be reduced. The bacon curers, on the other hand, stated that their cured products were sold within definite weights. Top prices are paid for pigs which make sides within these weights. The price for heavier or lighter pigs is determined by the market price for the heavier

or lighter sides. Consequently, we consider curers have no other option than to cut the price of pigs that do not come within the required weights. Some witnesses complained that the weights below and above the standard for which "cuts" were made were very arbitrarily fixed, and frequently without the knowledge of the feeders. A suggestion made in this connection appears to us reasonable, viz., that curing firms should notify feeders as widely as possible beforehand regarding any changes likely to be made in the scale of "cuts," and that they should also acquaint feeders at different periods of the season regarding the weight of pig which is most in demand and for which the highest price will be paid.

The lack of competition caused by the clashing of fairs was referred to in evidence by several witnesses, both feeders and curers, in the south. The former pointed out that the effect of this was to lower prices owing to the number of possible buyers being reduced; curers also took exception to this circumstance, as it made it difficult for them to obtain an equable supply of pigs for handling from day to day.

### (3) GREATER PROFITABLENESS OF STORE CATTLE RAISING AND POULTRY KEEPING.

The evidence of many witnesses shows that in recent years store cattle raising and poultry keeping were considered more profitable than pig feeding, and this belief induced many holders to reduce their stock of pigs.

### (4) LACK OF PIG-HOUSES ATTACHED TO RURAL DISTRICT COTTAGES.

The want of proper pig-styes in connection with Rural District Council cottages has been widely mentioned in the evidence as restricting the numbers of pigs which otherwise would be kept by agricultural labourers.

### (5) THE EFFECT OF SANITARY RESTRICTIONS IN TOWNS.

In cities and urban districts the enforcement of sanitary regulations has resulted in materially decreasing the numbers of pigs fed. The administration of the sanitary laws regarding the keeping of pigs appears to vary according to the attitude of the local authorities. In some cases the regulations have not resulted in any marked decrease in the numbers of pigs kept; in other cases they have brought about a very pronounced reduction. In the larger cities, such as Dublin, Belfast, and Cork, the public health restrictions have greatly curtailed the feeding of pigs. The representatives of several local authorities stated that the latter fully recognised the importance of labourers and small householders being able to keep pigs.

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## SECTION III.

### WORKING OF THE DEPARTMENT'S SCHEME FOR IMPROVING THE QUALITY OF IRISH PIGS.

Before the inception of the Department of Agriculture, the bacon curers in the south of Ireland, through their Association, distributed pure-bred boars of the Large York breed throughout the south and west of Ireland for many years, and by this means greatly improved the quality of the pigs in these districts.

The Royal Dublin Society, from the year 1887, were given a small grant from the State for the purpose of the improvement of live stock, including swine; this was administered by the Society up to 1902, when it was transferred by Act of Parliament to the Department of Agriculture. Since 1900 the Department have had in operation in Ireland a scheme for the improvement of swine by means of premium boars of approved breeds. Out of the joint fund formed by grants from the Department and the county rates, a sum is annually set aside to provide premiums for boars. The amount expended on the improvement of swine in each county is fixed by the members of the County Committees of Agriculture, who are acquainted with the conditions and requirements of the different districts. The value of the first year's premium is £3, and this is usually the purchase price of the boar selected and certified on inspection as up to the standard suitable for premiums. When the boar is kept for the second year, an additional premium of £3 is given.

As an indication of the growth of this scheme, it may be pointed out that in 1901 there were allocated 161 premiums, representing an expenditure of £752; in 1913 the premiums given totalled 503, with an expenditure of £2,063. Since 1905, in addition to the boars provided in each county from the joint fund, a number of special premiums for the provision of boars in congested districts has been granted, the cost being met out of a special fund given to the Department annually for these districts. The total number of premium boars at service in Ireland in 1914 was 503, or approximately 25 per cent. of all the boars in the country.

In several counties we learned from witnesses that the County Agricultural Committees experienced difficulty in getting the number of premiums allocated each year taken up. In other counties we found that the number of applications for the premiums offered greatly exceeded the latter, and this necessitated a selection being made. The securing of applicants for premiums depends to a considerable extent on the activity of the Secretary of the County Committee in personally organizing each district. Where this course is adopted there appeared to be no difficulty in getting applicants to take up the premiums allocated. A number of witnesses attributed the difficulty in securing a sufficiency of applicants for premiums to the fact that the amount that is given as a premium is not sufficient to attract men who would be disposed to keep a premium boar. The suggestion was made by witnesses, many of them representatives of County Agricultural Committees, that the value of the premium, which, as already mentioned, is £5, should be increased, and that the fee for service, which is fixed at 1s., might be raised.

Some of those who gave evidence, and who were themselves breeders of pure-bred pigs, stated that there was a growing disinclination among owners of pure-bred stock to continue the breeding of boars, inasmuch as they considered the amount given for a young boar selected for premium purposes inadequate. It did not compensate for the expense incurred in procuring pure-bred stock and the trouble involved in rearing boars for premiums. One large breeder of pure-bred pigs stated in evidence that owing to the high price of pork during the last two years, he found it more profitable to turn his pigs into pork than to dispose of them for breeding purposes; he also stated that the price paid by the Department for premium boars could not possibly pay, and that he had decided in future to breed pigs solely for fattening. This appears to us a matter of great importance, as in order to keep up the supply of pure-bred boars it is essential that breeders should be encouraged in every way to maintain the output of their herds; but it is also equally necessary that the number of breeders engaged in producing pure-bred pigs in the country should be increased. The larger the number of pure-bred herds, the less risk of injury to the general stock of the country from inbreeding, particularly as pigs reproduce twice a year, and are, therefore more liable to be inbred than other kinds of live stock.

Breeders of pure-bred pigs who gave evidence stated that in many cases they suffered monetary loss through the failure of premium holders to return the crates in which the young boars had been dispatched.

#### BREEDS SUBSIDISED.

The two breeds which are at present being subsidised under the County Live Stock Schemes are the Large York and the Large White Ulster. The Large York is confined almost exclusively to Leinster, Munster, and Connacht; the Large White Ulster to the Ulster counties and County Louth. The popularity of the Large York all over the midland, southern, and western counties is due to the fact that it is an extremely thrifty animal, which makes a nice bacon pig at an early age, and meets fully the requirements of the London and south of England markets, which the southern bacon curers supply. For the long side trade, known as the "Wiltshire cut," a well ribbed pig, which will give a carcass showing a high proportion of lean meat and not carrying too much fat, is required. The southern curers have found the most suitable animal in the cross of the Large York boar with the common type of sow found on Irish farms. It is also claimed for the Large York pigs that they are extremely hardy and stand exposure well. As they have a moderately thick skin and carry a good coat of fine hair, they are specially suited to the live purchase system which prevails in the south and west; this sometimes necessitates the animals being driven long distances by road and subsequently penned in trucks for dispatch by rail to the curing factories. The thickness of the skin enables pigs of the York breed

to be transported for considerable distances without causing any damage to or discolouration in the carcase: it also permits the process of singeing the carcase, as practised in the southern factories, to be done without any risk of the skin cracking and the pork being injured.

The Large White Ulster is held in most esteem by breeders and feeders in northern counties, where it was first established as a type by selective breeding. A thicker, heavier pig than the Large York, it has a thin skin and carries little or no hair. It is also reputed to come more quickly to a marketable weight in proportion to the food given than does the Large York. Owing to its deep side this stamp of pig specially suits the requirements of northern curers, who put their bacon on the market "rolled." Further, as nearly all pigs marketed in Ulster are killed on the farms and sold as dead pork, the thinness of the skin and absence of hair in the Ulster pig do not cause any injury to the carcase in transport such as would be the case if purchased alive.

In some districts, both north and south, the breed known as Large Black is kept, but curers look on these pigs with disfavour. The chief objections urged against them by curers are (a) that the bacon from the Black Pigs cannot be sold as prime quality owing to a certain amount of discolouration in the skin, which cannot be got rid of in the process of curing; (b) that the heads and feet, on account of their colour, are objected to by customers, and bring therefore, a smaller return than those from the white breeds.

Both in the north and south feeders and breeders will best serve their own interests by producing the class and weight of pig which the bacon curers in their respective districts demand, and for which curers are prepared to pay the highest price the market will allow.

#### FEEDING EXPERIMENTS

During the course of our inquiry a number of witnesses furnished us with particulars regarding the results of feeding experiments. These are detailed in the Minutes of Evidence, on which this Report is based, and show the attention now being given to this subject.

The results of the pig feeding experiments carried out by the Department of Agriculture at Clonakilty for some years past are in our opinion of so great importance to Irish feeders that we give a brief summary of the different experiments.

##### EXPERIMENT No. I.

###### *Value of Home-grown v. Purchased Foods.*

The results show that the average daily gain in weight made by a large number of pigs fed on each of the following foods—Barley, Pollard, and Maize, was practically the same. The curers acknowledged that the pigs fed on barley produced a better quality of pork than those fed on maize, though no difference was made in the price paid.

##### EXPERIMENT No. II.

###### *The Quantity of Meal necessary to put on 1 lb. increase in Live Weight.*

This trial (with 150 pigs, some fed during summer and some in winter) showed that on the average 4.13 lbs. of meal were required to produce 1 lb. live weight; the maximum being 5.2 lbs., and the minimum 3.34 lbs. of meal. This demonstrates that approximately 5 cwt. of meal may be calculated to produce one cwt. of pork. The experiment also proved that pigs can be fattened with less food in summer than in winter. It would, therefore, be to the advantage of Irish farmers to feed more pigs in summer, not alone because the animals during the warmer months gain in weight more quickly in proportion to the amount of food consumed, but also because milk is then plentiful and pork is usually higher in price.

##### EXPERIMENT No. III.

###### *Value of Potatoes in Fattening Pigs.*

This experiment was suggested by tests carried out in Denmark, and was designed to ascertain the quantity of potatoes required to produce the same weight of pork as a



certain quantity of meal. The results corroborated to a surprising degree those obtained by the Danish authorities, and showed that in a mixed feeding ration 4 lbs. of potatoes were approximately equivalent to 1 lb. of meal; in other words, 20 cwts. of potatoes will in such a ration produce 1 cwt. of pork.

#### EXPERIMENT No. IV.

##### *The Value of Separated Milk for Pig Feeding.*

Though theoretically it was held that the value of separated milk, calculated on the basis of the food units contained, was equal to one-sixth that of meals, the result of this experiment showed that separated milk when fed to pigs with meals and potatoes was actually worth almost one-third more than its theoretical feeding value, owing most probably to the greater relish with which the pigs consumed their food. As a component of a mixed ration 1 gallon of separated milk or buttermilk is therefore approximately equal to 2 lbs. of meal, or, when Indian meal is selling at £9 10s. per ton, separated milk as an adjunct to meal and potatoes is worth 2d. per gallon.

In carrying out this experiment it was proved that in the early stages of fattening a larger increase of weight is obtained for the amount of food consumed than in the later stages; in other words, the younger the pig, the less food required to produce one pound increase in live weight. This fact, which is contrary to the opinion held by most feeders of pigs, has been fully corroborated by experiments conducted in Denmark, Canada, and England. From evidence it seems that most pig feeders in Ireland believe that when pigs reach a certain weight—say  $1\frac{1}{2}$  cwts.—the next quarter or half cwt. is put on more rapidly than the increase during any similar period in the earlier stages of fattening. This undoubtedly is true and accounts for the widely held belief that as the last quarter or half cwt. is most quickly put on by a good thriving pig, it is often more profitable when there is an abundance of food to keep pigs on until they are heavyweights before marketing them. The fact, however, is overlooked that though the daily gain in weight may be greater as the feeding period draws to a close, this increase is gained by a proportionally greater consumption of food and hence a greater cost than a similar increase in weight in the earlier stage.

#### EXPERIMENT No. V.

##### *The Relative Values of Cooked and Raw Meals for Feeding Pigs.*

The results proved that pigs fed either in summer or in winter on raw meals (*i.e.*, steeped in cold water for 1 to 12 hours) gave a higher daily gain than those fed on cooked meal; further, in quality of pork, the pigs fed on raw meal were quite equal to those fed on cooked meal. The general view expressed by witnesses regarding this last experiment was that if equally good results could be obtained from raw as from cooked foods when fed to pigs, the cost of fuel and cooking might be saved and the labour difficulty minimized.

So far as we could ascertain, no experiments have been undertaken in the United Kingdom to determine the possibility of feeding and fattening pigs on forage crops. It was suggested in evidence that it would be advisable for the Department to carry out experiments with such crops.

During the past two years County Committees of Agriculture have conducted a series of experiments and demonstrations on pig feeding, in each case under the supervision of the County Agricultural Instructor. These experiments have confirmed the Clonakilty results. In a number of instances we had as witnesses farmers on whose places these experiments had been conducted, and we were particularly struck by the amount of interest aroused as well as the information obtained through this agency. Again and again the witnesses expressed a strong opinion as to the value of such experiments and the importance of having them increased in number. It was also urged that the County Agricultural Instructors, as supervisors of these experiments, should explain the results to the students attending their winter classes as well as to farmers throughout their districts.

## CONCLUSIONS AND RECOMMENDATIONS.

As conclusions and recommendations arising out of this inquiry, we beg to submit the following :—

## FEEDING.

1. The evidence conclusively shows that those farmers who regularly breed and feed a certain number of pigs obtain the best results. We, therefore, strongly advise pig keepers to discontinue the present practice of giving up pig breeding and feeding when pork prices are low, and again commencing when the value of pork is high. This practice demonstrates that the feeding of pigs is regarded as a gamble, and as a result feeders do not follow it with the same confidence and regularity as applies to other branches of the live stock industry ; moreover, Irish curers are handicapped in maintaining the position of Irish bacon and hams on the British market.

2. As home-grown foods suitable for pig feeding can usually be produced at less cost than imported foods, farmers should devote as large an area of land as possible to the production of home-grown crops, and thus make themselves to a considerable extent independent of imported food supplies.

3. Barley especially might be more widely grown for this purpose, even on small areas. On peaty soil the variety known as Spratt might with advantage be tried by small holders. This variety has been grown in various counties under the Department's supervision, and on such soils has given excellent results. Under normal conditions it may be reasonably expected to yield 12 barrels or 24 cwt. per statute acre.

4. In many districts the area of potatoes and oats grown for feeding pigs might also be increased with advantage. We would draw attention to the results of the feeding experiments with meal and with potatoes. These have clearly demonstrated that 5 cwts. of meal will produce 1 cwt. of pork, and that in a mixed ration 20 cwts. of potatoes will produce the same result. This is of importance, because whatever quantity of grain and potatoes farmers may produce, they have an unlimited market in pigs for grain at one-fifth and for potatoes at one-twentieth the current price of pork—in other words, when pork is selling at 60s. per cwt. it means 12s. per cwt. for grain and £3 per ton for potatoes when converted into pork.

5. Farmers should adopt the system of fattening two or even three lots of pigs in the year by bringing them up to  $1\frac{1}{2}$  and  $1\frac{1}{4}$  cwts. in four months from weaning time. This method would leave greater profits than the system so widely followed in Connacht and other parts of the country, where pigs are allowed to run about as stores and subsequently fed till ten or eleven months old and then are sold as heavyweights of  $2\frac{1}{2}$  to 3 cwts and upwards, live weight.

6. As the value of separated milk for pig feeding does not appear to be sufficiently realized, even in creamery districts, we recommend that in order to encourage its more extensive use for this purpose, experiments should be conducted locally, and the results made widely known through the medium of the Agricultural Instructors.

7. The results obtained from the use of raw meals as against cooked meals require to be brought more directly and more prominently under the notice of pig feeders. If this system of feeding raw meal were more generally adopted, it would, in our opinion, greatly reduce the labour and the cost of pig feeding.

8. The results of the Clonakilty trials, as well as the evidence of a number of feeders, indicate that pigs may be profitably fed on rations composed of uncooked meals with raw potatoes, or pulped turnips or mangels. As this is a matter of much importance, we re-

commend that experiments on these lines should be conducted by the Department, and that similar trials should be carried out in each county by the Agricultural Committee, under the supervision of the Agricultural Instructor.

9. The pig feeding experiments carried out by the County Committees of Agriculture appear to be creating considerable interest, and, as a result, farmers are improving their methods of feeding. We recommend that County Committees should allocate more funds in order to increase the number of these experiments, and that the Agricultural Instructors should devote special attention to making known the results.

10. We consider that, in addition to the series of feeding experiments which the Department are carrying out at their stations, experiments as to the value of forage crops, such as vetches, rape, clover, etc., should be instituted in order to ascertain if these crops could be utilized profitably for pig feeding.

#### THE PIG BREEDING SCHEME.

11. To encourage the breeding of pure-bred pigs and to assist the Department's pig-breeding scheme, we recommend that—(a) the price paid by the Department to breeders for suitable boars should be increased; (b) the maximum value of the premiums fixed by the Department's scheme should be raised in order that County Committees might at their discretion offer a higher premium to selected applicants; (c) the County Committees should be given power to sanction an increase in the value of the service fee.

12. As pig breeding and feeding is mainly confined to small holders, and is one of the agricultural industries which gives the greatest return in proportion to the amount of capital invested, we recommend that County Committees of Agriculture should allocate for pigs a larger proportion of their funds available for live stock.

13. The character of the northern curing business being widely different from that carried on in the south, we are of opinion that in the Ulster counties and the county of Louth, the Large White Ulster breed is the type of pig most suitable for the trade carried on there. In the other provinces the Large White Ulster breed is unsuitable, and premiums therefore should be restricted to boars of the Large York breed, as they are in every respect admirably adapted for the southern trade.

14. In view of the evidence given regarding the tendency towards in-breeding among pigs of the Large White Ulster type, and the risk of this occurring owing to the limited number of breeders raising young boars for premium purposes, it is desirable that the number of pure-bred herds should be increased. We accordingly recommend the Department to hold a conference of representatives of the Royal Ulster Agricultural Society, the north of Ireland bacon curers, and breeders of pure-bred Large White Ulster pigs, to consider how best to improve and develop this breed.

15. To avoid disappointment to breeders who raise pure-bred boars for premiums we recommend that the Department should advise breeders as to the time of year when young boars for premiums are in demand, and also the periods when these animals are not likely to be required.

16. Owing to the difficulty which breeders frequently experience in having their crates returned by selected applicants for boars, we recommend that persons purchasing premium boars should be required to lodge with the Secretary of the County Committee of Agriculture, along with the usual deposit, the sum of 12s. 6d. for a crate, this amount to be refunded on the Secretary of the County Committee receiving a railway receipt showing that the crate had been returned to the breeder.

17. With the object of introducing fresh blood and preventing inbreeding, we consider that in the interests of the industry the Department should import annually a limited number of high class pure-bred boars from the most reliable herds in England. These animals should be either sold on reduced terms or leased at a small charge to breeders of

premium boars. The Department might also purchase a few boars which, when used as premium animals, had produced superior stock, and locate them on reasonable terms with breeders who have pure-bred herds.

18. In order to facilitate improvement and to prevent depreciation in the quality of Irish pigs through the use of inferior boars, we are of opinion that the Department should seek power from Parliament to permit only such boars as are registered after inspection to stand at a service fee in Ireland.

#### MARKETING

##### *(a) In the Southern, Midland, and Western Counties, where Pigs are sold alive in Fairs or Market Towns.*

19. Many feeders appear to be unaware that light pigs are in demand for curing purposes, and generally fetch the highest prices during October, November, and December, when small hams are required for the Continental and Christmas trade, and that heavier pigs are more in demand during the summer months when supplies of these are small. We consider that bacon curing firms should take the necessary steps to make these facts more widely known, and also should notify pig feeders from time to time regarding the weight of pigs likely to command the highest price.

20. As the system of selling pigs by live weight has given general satisfaction, local authorities in all market towns where large numbers of pigs are sold should as far as possible meet the requirements of their districts by the provision of suitable weighing machines for this purpose.

21. We consider that local market or fair committees should devote special attention to the regulation of dates for pig fairs and markets in order to avoid the clashing of such fixtures and the consequent lack of competition which the existing arrangements often entail.

22. In many market towns fair greens or suitable pens are not available for the sale of pigs. We consider that where possible suitable accommodation of this nature should be provided, and that the system of utilizing the public streets for this purpose should be abolished.

##### *(b) In the Ulster Market Centres, where only Dead Pigs are sold.*

23. Feeders in several districts were dissatisfied at the fines imposed by curers for injuries to the carcasses of pigs when marketed. This might be avoided by each local authority appointing an independent and competent person, such as the market trier, to examine the pigs and assess the damage according to prescribed rates.

#### GENERAL.

24. An opinion among feeders is widely held that a combine or "ring" to regulate prices exists among bacon curers. This, no doubt, has the effect of discouraging many persons from keeping pigs. Evidence to support such a belief was not, however, forthcoming, and we are satisfied that curers compete with each other for supplies.

25. It is to be regretted that buyers when purchasing fattened pigs make very little difference in price for quality; this fact we believe has a detrimental effect on the production of first class pork, as it does not encourage the good feeder nor tend to improve the quality and reputation of the finished article.

26. Rural District Councils in many counties have not provided pig sties in connection with the cottages erected under their schemes. We recommend that these authorities, so far as possible, should erect a suitable pig sty on each plot which is at present unprovided with such a structure, and that they should provide suitable accommodation for pigs in connection with each cottage erected in future.

27. It appears that in many districts the type of pig sty found on small holdings is often far from satisfactory: we, therefore, consider that County Agricultural Committees should pay particular attention to the improvement of pig houses. They might advantageously employ a competent man skilled in building and concrete work to give demonstrations and instruction to those who wish to improve their pig houses, and provide him with the casings required for concrete walls.

28. In congested districts Parish Committees have power to assist small holders to improve their homesteads and their holdings by means of grants from funds placed at their disposal by the Congested Districts Board. We consider the Department would be justified in asking the Congested Districts Board to consider specially applications for grants either to improve existing pig houses or to erect new buildings for the purpose on the holdings of tenant purchasers in such districts.

29. While recognizing that local authorities are bound to adopt every precaution necessary to safe-guard public health, we are of opinion that where householders in cities and urban areas have premises so situated in regard to their surroundings as to permit of pigs being kept without danger to the public health, these householders should not be debarred from carrying on a practice which has always appealed to the thriftiest of the working classes.

30. Owing to the great importance of the pig industry, which brings in a gross return of over £8,000,000 per annum, we consider that the Department should make provision for an increased central expenditure on the improvement of swine in order that effect may be given to our recommendations relating to the conducting of experiments and the purchase of pure-bred pigs.

We have the honour to be,

Sirs,

Your obedient Servants,

JAMES S. GORDON.

R. N. BOYD.\*

STEPHEN O'MARA.

PATRICK CLUNE.

J. WILLINGTON.

O. W. H. ROULSTON.

Dublin, Dated this 27th day of April, 1913.

\* See Note on p. 18.

## NOTE BY MR. R. N. BOYD.

When signing this Report I should like to add that we repeatedly had evidence that the housing and conditions under which pigs were fed were unsatisfactory and uneconomic, especially in the case of small holdings; and it was suggested that a great improvement could be effected by a moderate outlay on cement and breeze for floors, cement and sand for walls, and corrugated iron, put on over a little straw, for roofs. The Department of Agriculture would be in a position through its Instructors to give directions and advice on the proper use of these materials, and it was suggested that small loans for the purchase of cement and iron should be available on the certificate of the Agricultural Instructor of the district.

The Board of Works has in the past advanced considerable sums for improvements to farm standings, etc., but they limit their loans to holdings valued at £30 and over. Seventy-five per cent. of all the pigs in Ireland are raised on holdings under £30 valuation. The owners of small holdings are usually the men most in need of assistance from Government loans. I should have liked this Report to contain a recommendation that the benefits of the funds of the Board of Works should be available to the owner of any holding in Ireland in the hope that under normal conditions the recommendation might bear fruit, and that small holders might thus be able to get the suggested loans for the improvement of their buildings for pigs. Any other buildings are outside the scope of this inquiry.

R. N. BOYD.

DUBLIN CASTLE,

27th April, 1915.

SIR,

I have to acknowledge the receipt of your letter of the 27th instant, forwarding, for submission to His Excellency the Lord Lieutenant, Report of the Departmental Committee on the Irish Pig-Breeding Industry.

I am,

SIR,

Your obedient Servant,

E. O'FARRELL.

The Secretary,

Department of Agriculture and

Technical Instruction for Ireland,

Dublin.